MD33 **Engine/Vessel Monitor**

The MD33 is a data monitor system specifically designed for dual engine vessels. It converts rpm, analog gauge, and alarm/status(on/off) sensors into NMEA 2000 messages for display by MFD's(multi-function displays). It also accepts NMEA 0183 navigation data which it sends, along with engine data, to a PC for display and logging by our Cport² software. The MD33 is compatible with most marine engine sensors whether or not gauges are present.

RPM is sensed directly from Alternator output, sending units, or ignition pulses. The user must set the number of pulses-per-revolution (ppr) for each engine. Analog (gauge) inputs can be taken from existing gauges or resistive senders which can be powered by the MD33. Analog inputs A1-A4 sense 0-20V while A5 can sense inputs up to 40V for direct sensing of Battery Voltage. Alarm/status inputs sense the presence or absensce of voltage from switches, relays, or senders. Setup and calibration software is included. A standard micro-C connector is provided for NMEA 2000 hookup. All data interfaces, USB, CAN, and Engine, are galvanically isolated from each other.

MD33 Features:

- Two RPM inputs (Port, Stbd)
- Ten analog gauge inputs (5-Port, 5-Stbd)
- Ten alarm/status inputs (5-Port, 5-Stbd)
- NMEA 0183 input/output (4.8-38.4 Kbaud)
- NMEA 2000 CANbus interface (Send/Receive)
- USB PC interface (Setup/cal + display/logging)
- Compatible with most engine sensors/gauges
- Works with or without existing gauges

MD33 Specifications:

Supply Power	10-28 Vdc, 100 ma. (max)
NMEA IN + / -	Opto-isolated, 2.5V min (4800-38,400 baud)
NMEA OUT +/-	RS-422, 4V max (4800-38,400 baud)
Analog Input Range:	0-20V (A1-A4), 0-40V (A5)
Alarm/status Level	<1.5V (Off), >3.5V (On)
Max Analog or Alarm Level	30 Vdc (except A5 = 50 Vdc)
RPM +/- Input	Pulsed (Alternator, Sender, or Ignition)
Size/weight	3.75″x3.0″x1.0″/ 12oz.

Warranty- 2 year replacement.

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